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10/509,410	09/23/2004	Peter Lurkens	DE 020081	8056
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EXAMINER				
AMADEZ, RODNEY				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/509,410

**Applicant(s)**

LURKENS ET AL.

**Examiner**

RODNEY AMADIZ

**Art Unit**

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 and 5-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent 5,479,187—hereinafter “Chen”) in view of Okunuki et al. (U.S. Patent 7,034,895—hereinafter “Okunuki”).

As to **Claim 1**, Chen teaches a method for enhancing brightness and contrast in images provided by a projection-based presenter utilizing a display panel (**Fig. 3a, 12**) illuminated by at least one scrolling band of light (**15**) and a lamp (**18**) as a light source for said at least one scrolling band of light (**See Figs. 3a-8**), wherein said method comprises modulating the light output of said lamp (**18**) between different scrolling positions (**See Figs. 3a-8 and note 22, which provides the different scrolling positions**). Chen, however, fails to teach providing a higher light intensity by said lamp when parts of said display panel currently representing brighter parts of a respective image are illuminated by said at least one scrolling band of light than when parts of said display panel currently representing less bright parts of said image are illuminated by said at least one scrolling band of light, wherein relative brightness of the parts of said image is determined from the maximum brightness in the parts of said image. Examiner

cites Okunuki to teach a projection display device (***Figs. 1 and 11***) providing a higher light intensity by said lamp when parts of said display panel currently representing brighter parts of a respective image are illuminated by said at least one light than when parts of said display panel currently representing less bright parts of said image are illuminated by said at least one light (***Col. 3, line 62—Col. 4, line 10***), wherein relative brightness of the parts of said image is determined from the maximum brightness in the parts of said image (***implicitly suggested: Col. 3, line 62—Col. 4, line 10 and Col. 6, lines 52-59***). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teachings of Okunuki (i.e. adjusting the lamp depending on the image data) in the projection-based presenter as taught by Chen in order to achieve greater contrast.

As to **Claim 2**, Chen as modified by Okunuki, teaches that the average light intensity over time supplied by said lamp for an entire image is kept constant (***Okunuki—Col. 4, line 1—Col. 5, line 19***). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to apply an average light intensity over time supplied by the lamp for an entire image as taught by Okunuki in the projection-based presenter taught by Chen in order to conserve energy.

As to **Claims 3/1 and 3/2**, Chen teaches that said projection-based presenter utilizes at least one vertically scrolling band of light (***See Figs. 3a-8, note 15***). The combination of Chen and Okunuki yields that the intensity supplied by said lamp is adjusted for each horizontal line. Note that Chen teaches vertically scrolling per

horizontal line (**Abstract**). Furthermore, note that Okunuki teaches adjusting the intensity per image data (**Col. 3, line 62—Col. 4, line 10**).

As to **Claim 5**, Chen fails to teach that the said light output of said lamp (3) is modulated by varying the power supplied to said lamp (3). Examiner cites Okunuki to teach that the said light output of said lamp (3) is modulated by varying the power supplied to said lamp (3) (**Fig. 1, Reference Number 5 and Col. 6, lines 7-9**). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teachings of Okunuki (i.e. varying the power of the lamp) in the projection-based presenter as taught by Chen in order to conserve energy.

As to **Claim 6**, Chen teaches that said display panel (5) comprises adjustable apertures arranged in a matrix of rows and columns, and wherein changing fractions of said rows are illuminated by said at least one scrolling band of light. (**See Fig. 3 and note LCD panel 12 and electrodes 12d and See Abstract and Col. 5, lines 7-53**).

As to **Claim 7**, Chen teaches that the maximum aperture in each of said rows is adjusted to 100%, and wherein the other apertures of each of said rows are adapted such that a non-distorted brightness reproduction is maintained in each row (**See Abstract and Col. 5, lines 7-53—note that the maximum aperture is adjusted to 100% when the scanning electrodes 12d are actuated**).

As to **Claim 8**, Chen teaches adjusting the apertures of said display panel (5) for each scrolling position in accordance with said image in a way that the maximum aperture is 100% (**See Abstract and Col. 5, lines 7-53—note that the maximum aperture is adjusted to 100% when the scanning electrodes 12d are actuated**).

Chen, however, fails to teach determining the maximum brightness of an image that is to be projected in each scrolling position; determining for each scrolling position the relative power which has to be provided to said lamp (3) for achieving said determined maximum brightness with said maximum aperture of 100% while maintaining the relation to the brightness of the other image parts; scaling the overall power level such that the average power of the lamp corresponds to a rated power level. Examiner cites Okunuki to teach determining the maximum brightness of an image that is to be projected in each scrolling position (*implicitly suggested: Col. 3, line 62—Col. 4, line 10 and Col. 6, lines 52-59*); determining for each scrolling position the relative power which has to be provided to said lamp (3) for achieving said determined maximum brightness with said maximum aperture of 100% while maintaining the relation to the brightness of the other image parts (*Okunuki—Col. 6, lines 7-11 and Col. 7, lines 10-15 see also Fig. 4 and Col. 9, line 20—Col. 12, line 45*); scaling the overall power level such that the average power of the lamp corresponds to a rated power level (*Col. 6, lines 7-9 and 52-64 and Col. 7, lines 10-15*). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teachings of Okunuki (i.e. determining the maximum brightness of a screen, determining the relative power to achieve the maximum brightness and scaling the overall power level) in the projection-based presenter taught by Chen in order to consume less power.

As to Claim 9, Chen, as modified by Okunuki, teaches a projection based presenter (Chen, see Fig. 3) utilizing a display illuminated by at least one scrolling band

of light, which presenter comprises means (2,3,4,5,6,8) for carrying out the steps of claim 1 (*Chen, See Fig. 3 and see the rejection of Claim 1*).

As to **Claim 10**, Chen teaches a projection based presenter comprising a display panel (5) (*Fig. 3, 12*) with adjustable apertures arranged in horizontal lines (*Col. 5, lines 7-53*); a lamp (3) (*18*) for providing light for a projection; a scanner (4) (*22*) for directing said light output by said lamp (3) to said display panel (5) in subsequent horizontal bands (*See Figs. 3a-8*); a lens (*14*) (6) for projecting an image provided by said display panel (5); and an image processor (8) for receiving an image that is to be projected (*Abstract and Col. 4, lines 10-25 and Col. 5, lines 7-53*) and for controlling the size of said adjustable apertures of said display panel (5) according to a received image (*Abstract and Col. 5, lines 7-53*). Chen, however, fails to teach power supply means (1,2) for providing said lamp with an adjustable power and an image processor for controlling the power supply (2) to said lamp. Examiner cites Okunuki to teach a power supply means (1,2) (*Fig. 1, 5*) for providing said lamp with an adjustable power (*Col. 6, lines 7-9*) and an image processor (7) for controlling the power supply (2) to said lamp (*Col. 6, lines 7-12*). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate a power supply means, controlled by an image processor as taught by Okunuki in the projection-based presenter taught by Chen in order to conserve energy.

As to **Claim 11**, Chen teaches that said lamp is a high pressure gas discharge lamp (3) (*Col. 4, lines 30-40*).

As to **Claim 12**, Chen teaches an image processor for a projection-based presenter utilizing a display panel (**Fig. 3a, 12**) illuminated by at least one scrolling band of light (**15**) and a lamp (**18**) as a light source for said at least one scrolling band of light (**15**) having different scrolling positions (**Figs. 3a-8**). Chen, however, fails to teach means for determining relative brightness of parts of a respective image from the maximum brightness in the parts of said image; and means for controlling a power supply to said lamp in a way that a higher light intensity is supplied by said lamp when parts of said display panel currently representing brighter parts of a respective image are illuminated by said at least one light than when parts of said display panel currently representing less bright parts of said image are illuminated by said at least one light. Examiner cites Okunuki to teach a projection display device (**Figs. 1 and 11**) with means for determining relative brightness of parts of a respective image from the maximum brightness in the parts of said image (*implicitly suggested: Col. 3, line 62—Col. 4, line 10 and Col. 6, lines 52-59*); and means (**Fig. 1, Reference Numbers 1-4 and 7**) for controlling a power supply (**5**) to said lamp (**6**) in a way that a higher light intensity is supplied by said lamp when parts of said display panel currently representing brighter parts of a respective image are illuminated by said at least one light than when parts of said display panel currently representing less bright parts of said image are illuminated by said at least one light (**Col. 3, line 62—Col. 4, line 10**). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teachings of Okunuki (i.e. adjusting the lamp with a



power supply depending on the image data) in the projection-based presenter as taught by Chen in order to achieve greater contrast.

As to **Claim 13**, Chen teaches a regulation and controlling system for a projection-based presenter utilizing a display panel (**Fig. 3a, 12**) illuminated by at least one scrolling band of light (**15**) and a lamp (**18**) as a light source for said at least one scrolling band of light (**15**) having different scrolling positions (**Figs. 3a-8**). Chen, however, fails to teach an image processor (8) determining the amount of power which has to be supplied to said lamp in order that a higher light intensity is supplied by said lamp (3) when parts of said display panel currently representing brighter parts of a respective image are illuminated by said at least one light than when parts of said display panel currently representing less bright parts of said image are illuminated by said at least one light. Examiner cites Okunuki to teach an image processor (**Fig. 1, Reference Numbers 1-4 and 7**) determining the power which has to be supplied to said lamp in order that a higher light intensity is supplied by said lamp when parts of said display panel currently representing brighter parts of a respective image are illuminated by said at least one light than when parts of said display panel currently representing less bright parts of said image are illuminated by said at least one light (**Col. 3, line 62—Col. 4, line 10**). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teachings of Okunuki (i.e. adjusting the lamp with a power supply depending on the image data) in the projection-based presenter as taught by Chen in order to achieve greater contrast. Chen also fails to teach a lamp power regulator supplying said lamp with power, which

lamp power regulator adjusts the power supplied to said lamp according to the respectively required power determined by said image processor, wherein relative brightness of the parts of said image is determined from the maximum brightness in the parts of said image. Examiner cites Okunuki to teach a lamp power regulator (**Fig. 1, reference numbers 3 and 5**) supplying said lamp (**6**) with power, which lamp power regulator adjusts the power supplied to said lamp according to the respectively required power determined by said image processor (**Col. 3, line 62—Col. 4, line 10 and Col. 5, line 55—Col. 7, line 44**), wherein relative brightness of the parts of said image is determined from the maximum brightness in the parts of said image (**implicitly suggested: Col. 3, line 62—Col. 4, line 10 and Col. 6, lines 52-59**). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teachings of Okunuki (i.e. adjusting the lamp with a power supply depending on the image data) in the projection-based presenter as taught by Chen in order to achieve greater contrast.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen and Okunuki as applied to claims 1-3 and 5-13 above, and further in view of Haven et al. (U.S. Patent 6,739,723--hereinafter "Haven").

As to **Claim 4**, Chen, as modified by Okunuki, fails to teach that said display panel (5) is illuminated by three scrolling bands of light of different colours. Examiner cites Haven to teach a display panel (**Fig. 7, 120**) that is illuminated by the scrolling bands of light of different colours (**See Fig. 7 and Col. 11, lines 45-65**). At the time the

invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate a three scrolling bands of light of different colours as taught by Haven in the projection-based presenter as taught by Chen, as modified by Okunuki, in order to form a full color image (*Haven—Col. 11, lines 45-65*).

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1, 12 and 13 have been considered but are moot in view of the new ground(s) of rejection. The Applicant argues that Chen and Okunuki fail to disclose, teach or suggest that "the relative brightness of the parts of said image is determined from the **maximum** brightness in the parts of said image". (Emphasis added). The Examiner respectfully disagrees. The Applicant pointed out that "Okunuki teaches detecting the average luminance level for one frame (or one field) of video signal, and outputting an amplification coefficient depending on the detected average luminance lever. The APL detection circuit obtains the average picture level (APL) of the luminance level of the video area in the entire video signals of one frame (or field). See Abstract; column 6, lines 52-59." (Page 10). The Examiner argues that because Okunuki uses the average value of the luminance level, he must find the maximum and minimum luminance levels in order to obtain the average luminance value; therefore, because Okunuki utilizes the average luminance level, it is implicitly suggested that Okunuki also uses the maximum value to determine the relative brightness of the parts.

**Conclusion**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Miyawaki

U.S. Patent 6,683,657

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

***Inquiries***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney Amadiz whose telephone number is (571) 272-7762. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sumati Lefkowitz/  
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7/16/08

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